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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---------------------------|-------------|----------------------|---------------------|------------------|
| 10/760,389 | 01/21/2004 | Kunishige Oe | Q79276 | 1311 |
| 65565 | 7590 | 11/20/2008 | EXAMINER | |
| SUGHRUE-265550 | | | VARGOT, MATHIEU D | |
| 2100 PENNSYLVANIA AVE. NW | | | ART UNIT | PAPER NUMBER |
| WASHINGTON, DC 20037-3213 | | | 1791 | |
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| | | | 11/20/2008 | PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/760,389 | OE ET AL. | |
| | Examiner | Art Unit | |
| | Mathieu D. Vargot | 1791 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 23 July 2008.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-9, 11 and 12 is/are pending in the application.
- 4a) Of the above claim(s) 12 is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-9 and 11 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ . |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>8/12/08</u> . | 6) <input type="checkbox"/> Other: _____ . |

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-9 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chandross et al (see col. 2, lines 35-63; col. 4, line 28 through col. 6, line 73) in view of Japanese document 2002-356,615 and Japanese document 8-320,422.

Chandross et al discloses making an optical waveguide by disposing a resin composition on a support, the resin comprising a polymeric moiety and a refractive index changing monomeric dopant, forming an optical path through the resin composition using light having a wavelength capable of inducing a structural change in the dopant (see col. 2, lines 45-48) and removing the dopant that is not polymerized after formation of the optical path (see col. 2, lines 61-63). The primary reference essentially lacks the aspects of the resin composition comprising the instant pyridine derivative and that the path is formed between two or more optical devices. As previously noted, Japanese -615 discloses making an optical waveguide by polymerizing the instant pyridine derivative into a polyimide resin composition that is excellent in heat resistance. It surely would have been obvious to have employed a known resin composition as taught in Japanese -615 in lieu of the resin/dopant composition of the primary reference to form a waveguide of increased heat resistance. It is within the skill level of the art to pick and choose suitable resin systems for making optical devices and one of ordinary skill in the art would have been expected to know of

this. Japanese -422 discloses forming an optical waveguide between two optical devices and such would have been an obvious feature in the process of Chandross et al to facilitate making the optical circuit. Ie, as is conventional in the art, the circuit would be in place prior to the formation of the waveguide so that additional device attachment steps would be obviated.

2. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Applicant's comments directed to the previous rejection are now submitted to be moot in view of the new grounds. Clearly, newly applied primary reference teaches a resin composition that would be analogous to the instant, using a dopant monomer that is structurally changed upon irradiation thereby causing it to polymerize with the resin. That is apparently what is occurring in the instant polymerization of the pyridine derivative into a polyimide resin. One of ordinary skill in this art would know to pick and choose from known resin compositions to form a waveguide with the desired optical and physical properties.

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mathieu D. Vargot whose telephone number is 571 272-1211. The examiner can normally be reached on Mon-Fri from 9 to 6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson, can be reached on 571 272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

M. Vargot
November 19, 2008

/Mathieu D. Vargot/
Primary Examiner, Art Unit 1791